ORDER NO. SD83092647C2

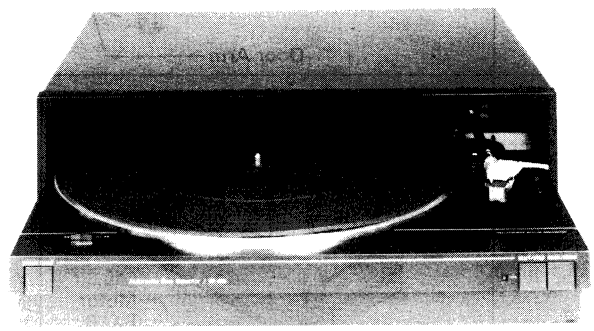
Service Manual

Turntable System

SF-630

(KE)

(KE) BLACK TYPE



Specifications

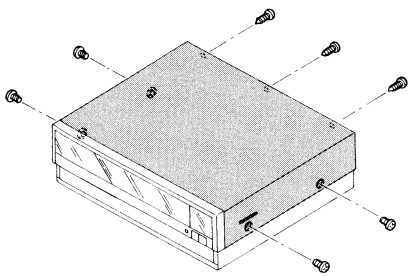
Turntable System	Front Loading, Fully Automatic Turntable
Turntable Size	29 cm (11")
Turntable Speed	33-1/3 r.p.m. and 45 r.p.m.
Phono Motor	Electro Governor DC motor
Cartridge	Moving Magnet Type (EPC36SMBD)
Stylus	Diamond (EPS 43STSD)
Stylus Pressure	2 ~ 3g
Wow and Flutter	0.15 (WRMS), ± 0.25%

Panasonic

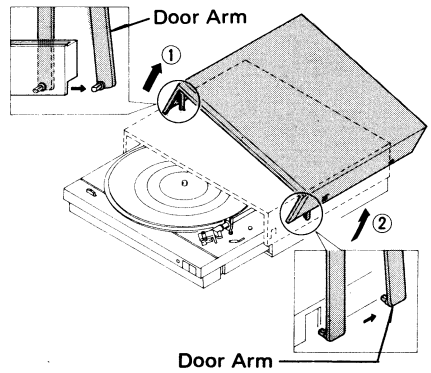
Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka, Japan

DISASSEMBLY INSTRUCTIONS

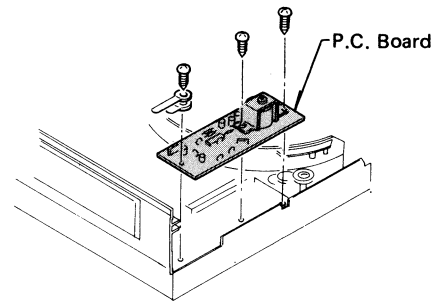
❶ Remove The Screws



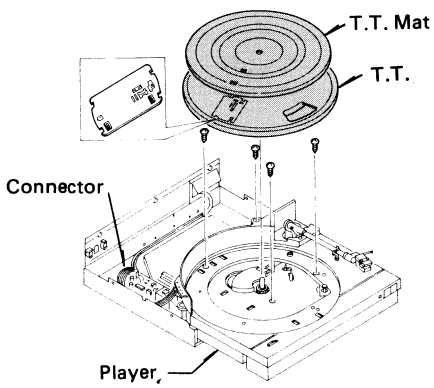
❷ Remove The Cabinet



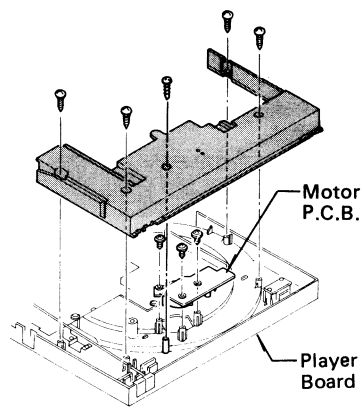
❸ Remove The P.C. Board



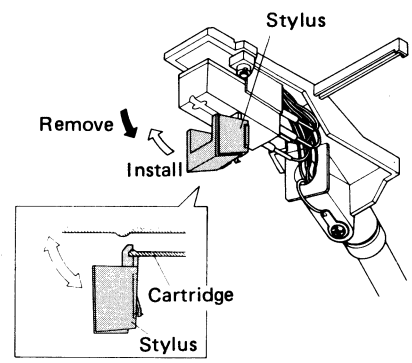
❹ Remove Player



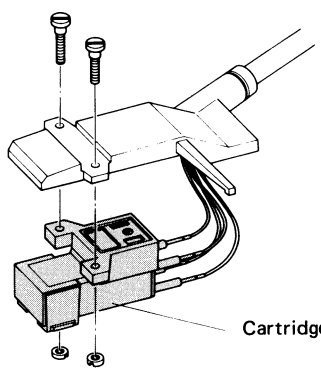
❺ Remove Motor P.C. Board



❻ Remove The Stylus



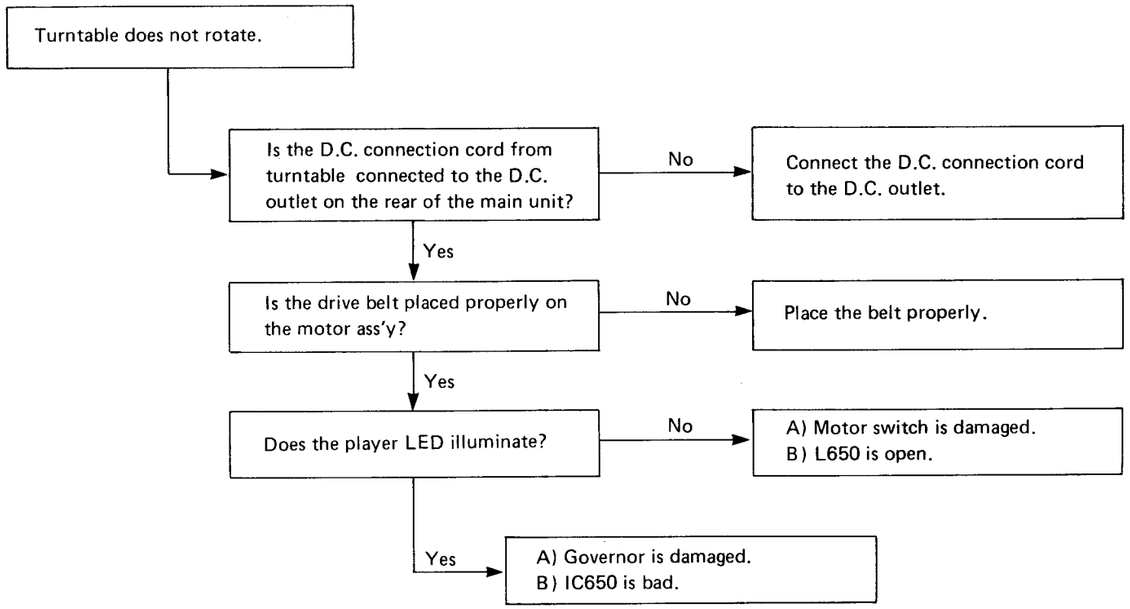
❼ Replace The Cartridge



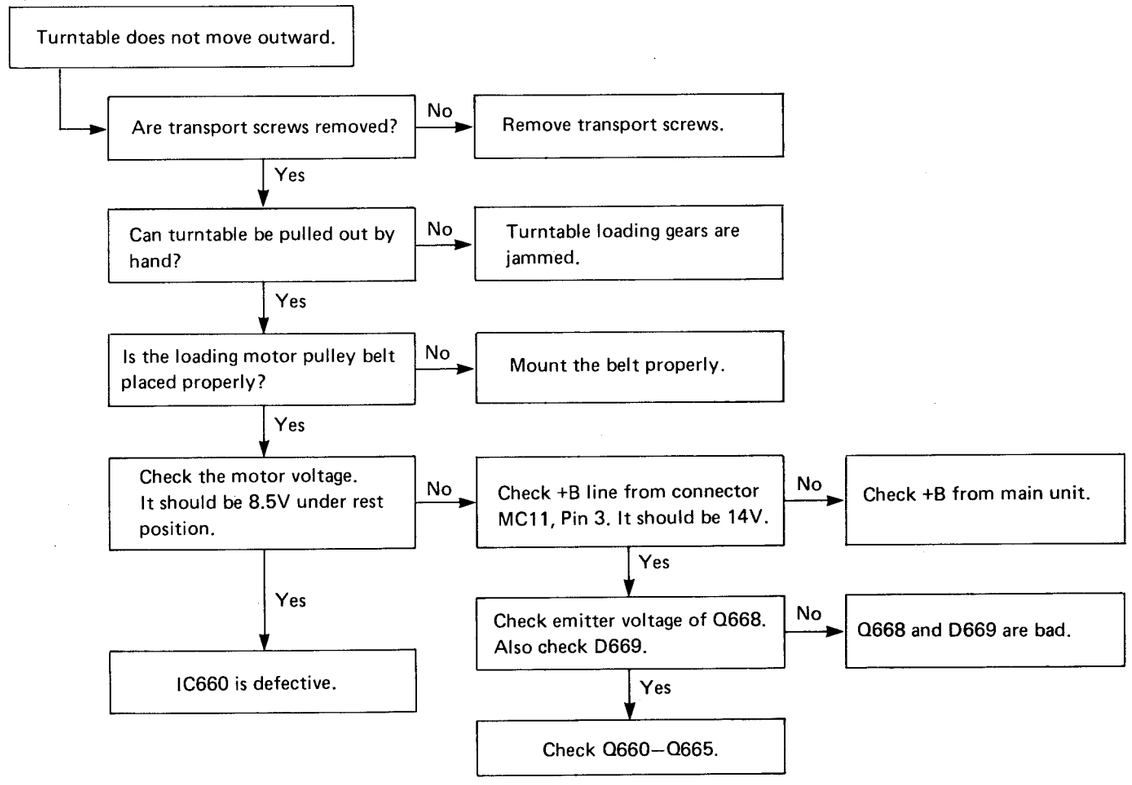
- **To Replace Parts on P.C Board**
  - **Control P.C. Board** . . . . . Refer to ❶ ~ ❸
  - **Motor P.C. Board** . . . . . Refer to ❶ ~ ❺
- **To Remove Player** . . . . . Refer to ❶ , ❷ , ❹
- **To Replace Stylus** . . . . . Refer ❻
- **To Replace Cartridge** . . . . . Refer ❼

TROUBLE SHOOTING GUIDE

1)

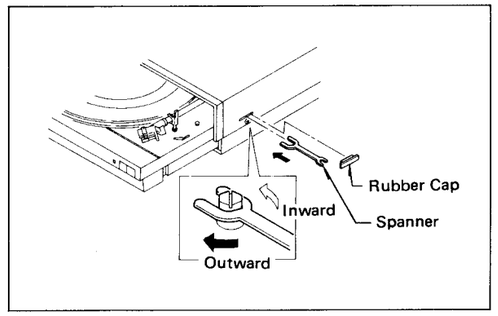

Turntable does not rotate.
Is the D.C. connection cord from turntable connected to the D.C. outlet on the rear of the main unit?
No
Connect the D.C. connection cord to the D.C. outlet.
Yes
Is the drive belt placed properly on the motor ass'y?
No
Place the belt properly.
Yes
Does the player LED illuminate?
No
A) Motor switch is damaged.
B) L650 is open.
Yes
A) Governor is damaged.
B) IC650 is bad.

2)

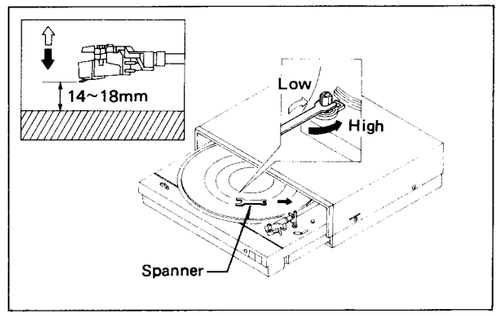


ADJUSTMENTS

Tone Arm Drop Point Adjustment

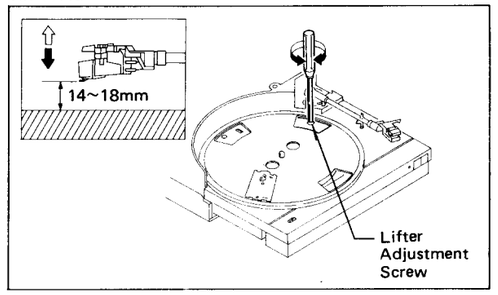


for Cue Up

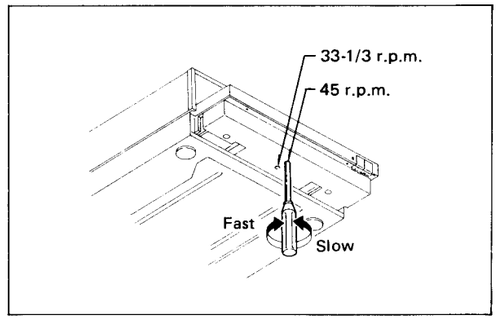


Tone Arm Lifting Height Adjustment

for Return



Motor Speed Adjustment



VOLTAGE OF EACH MODE

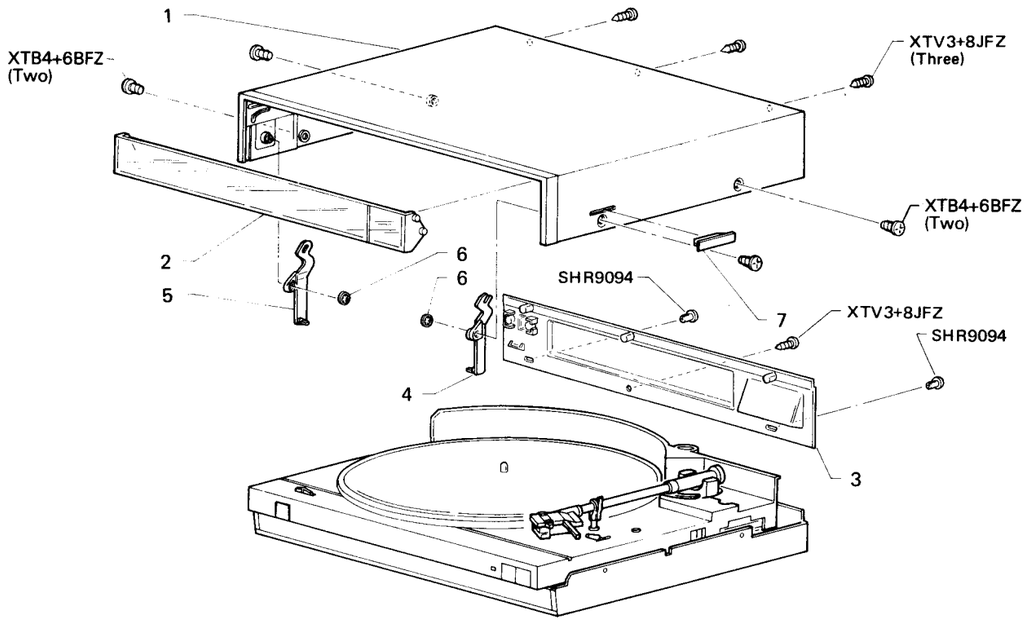
IC660

	A mode	B mode
Pin 1	3.7V	3.7V
Pin 2	0 V	0 V
Pin 3	14.6V	14.6V
Pin 4	0 V	0 V
Pin 5	14.6V	14.6V
Pin 6	0 V	0 V
Pin 7	0 V	0 V
Pin 8	0 V	0 V
Pin 9	14.6V	14.6V
Pin 10	0 V	0 V
Pin 11	0 V	0 V
Pin 12	11.5V	11.5V
Pin 13	11.5V	11.5V
Pin 14	14.7V	14.7V

* NOTE: A mode ..... Open position
B mode ..... Moving inward and outward

	A mode			B mode		
	Base	Collector	Emitter	Base	Collector	Emitter
Q660	0.6V	9 V	0.2V	14.6V	9 V	9 V
Q661	0.2V	8.5V	0 V	9 V	2 V	0 V
Q662	8.5V	8.5V	9 V	8.5V	2 V	10.2V
Q663	8.5V	8.5V	9 V	8.5V	8.5V	10.2V
Q664	0 V	8.5V	0 V	0 V	8.5V	0 V
Q665	0 V	9 V	0 V	0 V	9 V	0 V
Q666	0 V	0 V	0 V	14 V	0 V	0 V
Q667	0 V	0 V	0 V	14 V	0 V	0 V
Q668	9 V	14 V	9 V	9 V	14 V	9 V

PARTS LOCATION OF CABINET



REPLACEMENT PARTS LIST OF CABINET

Ref. No.	Part No.	Description
1	SYK2074-2	Cabinet Ass'y
2	SYE994-2	Door Ass'y
3	SYU528-2	Rear Cover
4	SBE288	Door Arm (R)
5	SBE290	Door Arm (L)
6	SNE478	Push Nut
7	SHG9248-1	Rubber Cap

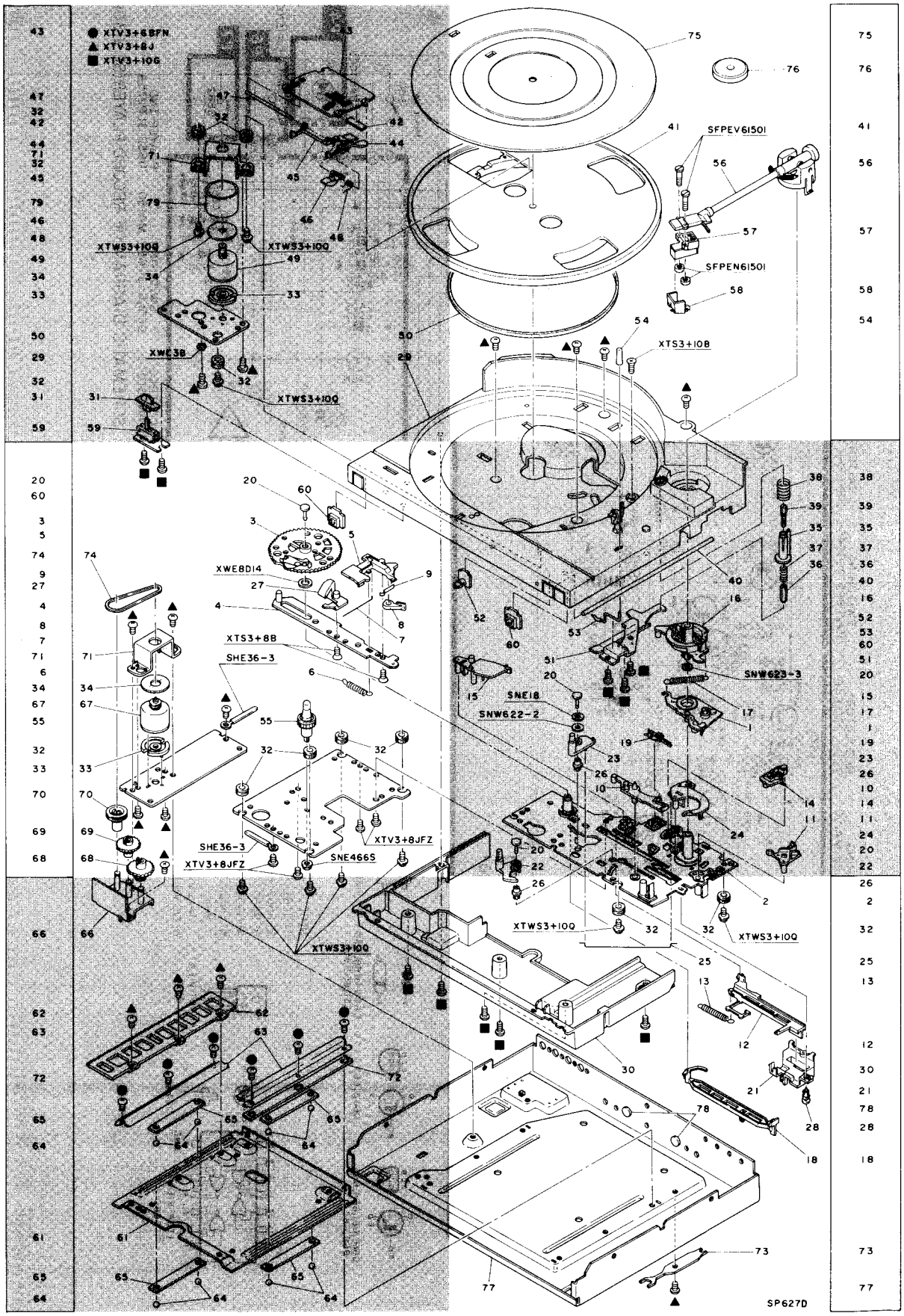
REPLACEMENT PARTS LIST OF RECORD PLAYER

RECORD PLAYER PARTS

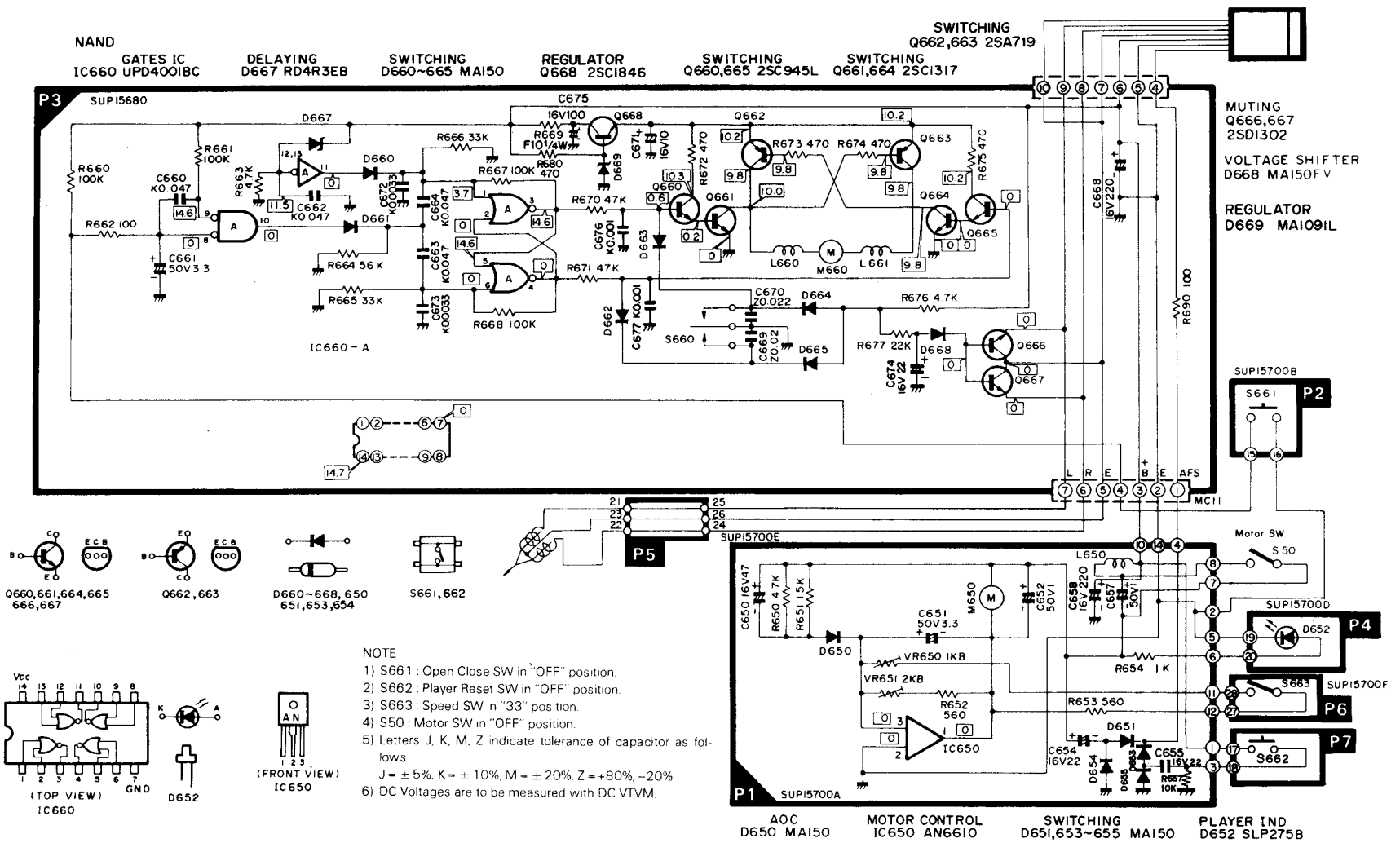
Ref. No.	Part No.	Description	Per Set
1	SJY406	PU Moving Plate	1
2	SJY1034-8	Base Plate	1
3	SJY416	Main Gear Ass'y	1
4	SJY496	Operating Plate	1
5	SJY90014-2	Bracket	1
6	SJY90066-1	Spring	1
7	SJY90068-1	Spring	1
8	SJY90016	Operating Plate	1
9	SJY90018-1	Plate Spring	1
10	SJY90304	Bracket	1
11	SJY90022-1	Clamp Plate	1
12	SJY90096	Start Plate	1
13	SJY90070	Spring	1
14	SJY9009B-1	Operating Plate A	1
15	SJY9002B-4	Operating Plate B	1
16	SJY90030-1	Tone Arm Plate	1
17	SJY90072	Spring	1
18	SJY90032-1	Actuating Plate	1
19	SSP66	Switch	1
20	SHR9174	Stopper Pin	3
21	SJY90102-1	Bracket	1
22	SJY90308	Lever, Record Size	1
23	SJY90310	Lever, Select Moving	1
24	SJY90312	Operating Plate	1
25	SJY90314	Spoke	1
26	SHR9198	Lever Shaft	2
27	SJY492	Operation Plate	1
28	RHR969ZA	Ratch	1
29	SJY494-3	T/T Board Ass'y	1
30	SJY90318-1	Bottom Cover	1
31	SBN1100	Knob, Slide	1
32	SHG9238	Rubber Cushion	9
33	SJY90322	Spacer, Motor	2
34	SJY90324	Rubber, Motor	2
35	SJY5196-2	Lifter	1
36	SJY90034	Lifter Pin	1
37	SJY90160	Spring	1
38	SUS84-2	Spring	1
39	SJY90332	Adjustment Screw	1
40	SJY90336-1	Start Rod	1
41	SJY3050	Turntable	1
42	SHS9424	Sheet	1
43	SJY90340	Sensor Base	1
44	SJY90342	Record Sensor A	1
45	SJY90344	Record Sensor B	1
46	SJY90346	Stopper	1
47	SJY90348	Shaft	1
48	SJY90350-1	Spring	1
49	MMNS100N-TT	Motor Ass'y	1
50	SJY90080	Belt, Turntable	1
51	SJY480	Plate	1
52	SJY5162	LED Spacer	1
53	SJY90172-1	Cueing Lever	1
54	SJY5050	Cueing Knob	1
55	SJY482	T/T Shaft Ass'y	1
56	EPA642SMHD	Tone Arm	1
57	EPC36SMBD	Cartridge	1
58	EPS43STSD	Stylus	1
59	SSS110-1	Speed Selector	1
60	EVQQQR04K	Switch	2
61	SJY90366	Slide Plate	1
62	SJY90368-1	Lack	1
63	SJY90370	Plate Spring	2
64	SJY90372	Ball	8
65	SJY90374	Ball Spacer	4
66	SJY500	Gear Ass'y	1
67	MMNS100N	Motor Ass'y	1
68	SJY90382	Gear A	1
69	SJY90384	Gear B	1
70	SJY90386	Pulley	1
71	SJY90320	Installation Plate	1
72	SUD410-1	Spacer	1

Ref. No.	Part No.	Description	Per Set
73	SPB4010	Spanner	1
74	SM04744	Motor Belt	1
75	SJY4062-1	Turntable Mat	1
76	SJY5018-1	EP Adaptor	1
77	SJY534-2	Bottom Board Ass'y	1
78	SHS3066	Felt	2
79	SJY90410	Motor Cover	1

EXPLODED VIEW OF RECORD PLAYER



SCHEMATIC DIAGRAM

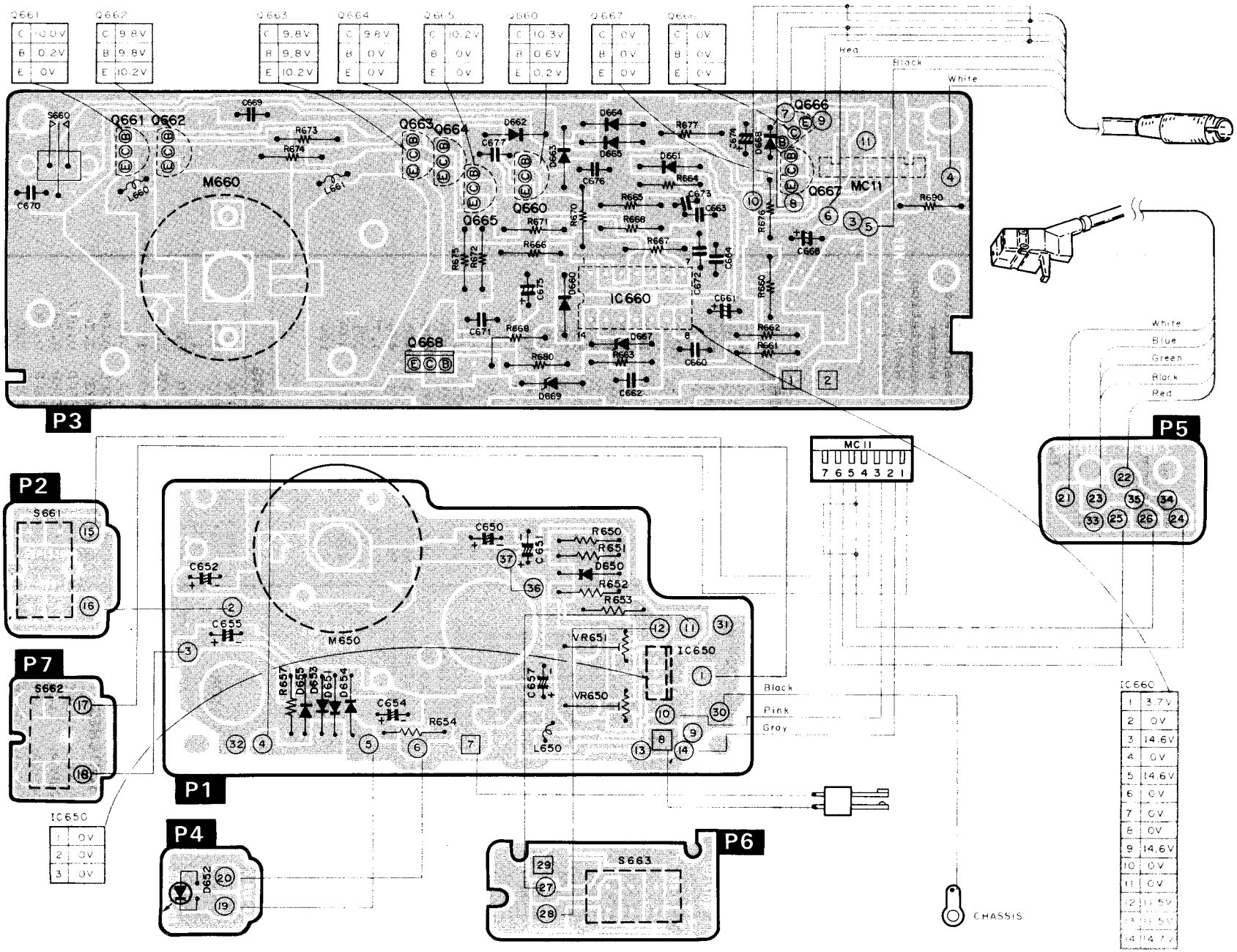


NOTE

1) S661 : Open Close SW in "OFF" position.
2) S662 : Player Reset SW in "OFF" position.
3) S663 : Speed SW in "33" position.
4) S50 : Motor SW in "OFF" position.
5) Letters J, K, M, Z indicate tolerance of capacitor as follows
   J = ± 5%, K = ± 10%, M = ± 20%, Z = +80%, -20%
6) DC Voltages are to be measured with DC VTVM.

SCHEMATIC DIAGRAM OF RECORD PLAYER(SF-630KE)

CIRCUIT BOARD AND WIRING CONNECTION



REPLACEMENT PARTS LIST

NOTE:

1. Important safety notice:
   Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
2. Parts No. listed in this Parts List are Service Parts.

Ref. No.	Part No.	Description
TRANSISTORS		
Q660	2SC945L-P	Switching
Q661	2SC1318-R	Switching
Q662	2SA720-Q	Switching
Q663	2SA720-Q	Switching
Q664	2SC1318-R	Switching
Q665	2SC945L-P	Switching
Q666	2SD1302-R	Muting
Q667	2SD1302-R	Muting
Q668	2SC1846R	Regulator
INTEGRETED CIRCUIT		
IC650	AN6610	Motor Control
IC660	UPD4001BC	Nand Gates
DIODES		
D650	MA162A	AOC
D651	MA162A	Switching
D652	SLP275B	Player Ind
D653	MA162A	Switching
D654	MA162A	Switching
D655	MA162A	Switching
D660	MA162A	Switching
D661	MA162A	Switching
D662	MA162A	Switching
D663	MA162A	Switching
D664	MA162A	Switching
D665	MA162A	Switching
D667	RVDMZ204	Delaying
D668	MA162A	Volatge Shifter
D669	RVDRD9R1FB	Regualtor
COILS		
L650	SLQU270-4Y	Choke
L660	SLQU270-4Y	Choke
L661	SLQU270-4Y	Choke
VARIABLE RESISTORS		
VR650	EVNK6AA00B13	Speed Adjust
VR651	EVNK6AA00B23	Speed Adjust
SWITCHES		
S660	SSP72-1	Leaf Sw
S661	EVQQQR04K	Tact Sw
S662	EVQQQR04K	Tact Sw
S663	SSS110-1	Speed Select
PACKINGS		
1	SPN5338-1	Side Pad (L)
2	SPN5340-1	Side Pad (R)
3	SPP228	Set Cover
4	SPH6224	Sheet
5	SNE294S	Screw A (for Transportation)
6	SNE292-1	Screw B (for Transportation)
7	SNW622-6	Washer (for Transportation)
8	SNW622-7	Washer (for Transportation)
RESISTORS		
R650	ERD25FJ472	4.7k
R651	ERD25FJ152	1.5k
R652	ERD25FJ561	560
R653	ERD25FJ561	560
R654	ERD25FJ102	1k
R657	ERD25FJ103	10k
R660	ERD25TJ104	100k
R661	ERD25TJ104	100k
R662	ERD25FJ101	100
R663	ERD25FJ472	4.7k
R664	ERD25TJ563	56k
R665	ERD25TJ333	33k
R666	ERD25TJ333	33k
R667	ERD25TJ104	100k
R668	ERD25TJ104	100k
R669	ERD2FCG100	10
R670	ERD25TJ473	47k
R671	ERD25TJ473	47k
R672	ERD25FJ471	470
R673	ERD25FJ471	470
R674	ERD25FJ471	470
R675	ERD25FJ471	470
R676	ERD25FJ472	4.7k
R677	ERD25TJ223	22k
R680	ERD25FJ471	470
R690	ERD25FJ101	100
CAPACITORS		
C650	ECEA1ES470	47
C651	ECEA50Z3R3	3.3
C652	ECEA50Z1	1
C654	ECEA1ES220	22
C655	ECEA1CS220B	22
C657	ECEA50Z1	1
C658	ECEA1HS221	220
C660	ECFD1V473KD	0.047
C661	ECEA50Z3R3	3.3
C662	ECFD1V473KD	0.047
C663	ECFD1V473KD	0.047
C664	ECFD1V473KD	0.047
C668	ECEA1ES221	220
C669	ECKD1H223ZF	0.022
C670	ECKD1H223ZF	0.022
C671	ECEA1CS100	10
C672	ECKD1H332KB	0.0033
C673	ECKD1H332KB	0.0033
C674	ECEA1ES220	22
C675	ECEA1ES101	100
C676	ECKD1H102KB	0.001
C677	ECKD1H102KB	0.001

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